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## MARINE INSECTS OF THE TOKARA ISLANDS

### V. THREE NEW SPECIES OF THE GENUS *LAIUS* GUÉRIN FROM KYUSHU AND THE TOKARA ISLANDS, WITH NOTES ON A SPECIES FROM MARIANNA<sup>1)</sup>

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*With Plate XXV and 3 Text-figures*

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*Laius miyamotoi* n. sp.

(Pl. XXV, Figs. 1, 4-left; Text-fig. 1)

♀. Black, with rather faint bluish tinges upon elytra; antennae black, with 2nd joint reddish brown and often 1st and 3rd also more or less partly reddish; labrum and mouth organs more or less reddish, with apex of mandibles and palpi blackish; trochanters and apex of coxae also somewhat reddish; abdomen brownish with a large blackish patch on both sides of each sternite; lateral protrusible vesicles and membranous part behind procoxae reddish yellow. Body surface densely covered with rather short, suberect brownish hairs throughout.

Body oblong, rather depressed above. Head and prothorax opaque above, very thickly, strongly and rugosely punctured, the former flattened in the anterior half and gently convex behind, bearing a small fovea in the middle between the eyes and longitudinally rugose behind it. Mandibles strongly arcuate externally and sharply bifid at the apex. Labrum shining, transverse, truncate in front and rounded at the sides, finely and sparsely punctured. Clypeus short and very transverse, somewhat membranous anteriorly. Eyes oval in outline, far apart, rather small but prominent. Antennae rather robust, 1st joint long, curved and markedly widened to the apex, 2nd very short, 3rd oblong, moderately thickened, a little longer than a half of 1st, 4th to 10th short and rather stout, scarcely as long as broad, 11th ovate and obtusely acuminate terminally. Prothorax broader than the head with eyes, transverse, subcordate, widest behind the rounded front angles, sides feebly rounded and gently converging to the broadly rounded hind angles, front and basal margins very slightly arcuate or subtruncate, the latter narrowly bordered and the sides finely margined. Scutellum transverse, trapezoidal and narrowed towards the obtusely rounded hind

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1) Scientific Survey of the Tokara Islands, Report No. 19.

angles, surface finely and closely punctured, the punctures distinct but less deeply set than in the pronotum. Elytra broader than the thorax at the base, slightly broadened posteriorly, a little shining, microscopically alutaceous, and minutely, shallowly and closely punctured. Head beneath transversely rugose and roughly punctured, with a deep fovea on each side. Pro- and mesopleura finely but distinctly punctured, metapleura more finely so. Metasternum minutely and not so closely punctured. Abdomen weakly chitinated for the large part, minutely and moderately closely punctured. Legs of moderate size, finely punctured and pubescent.

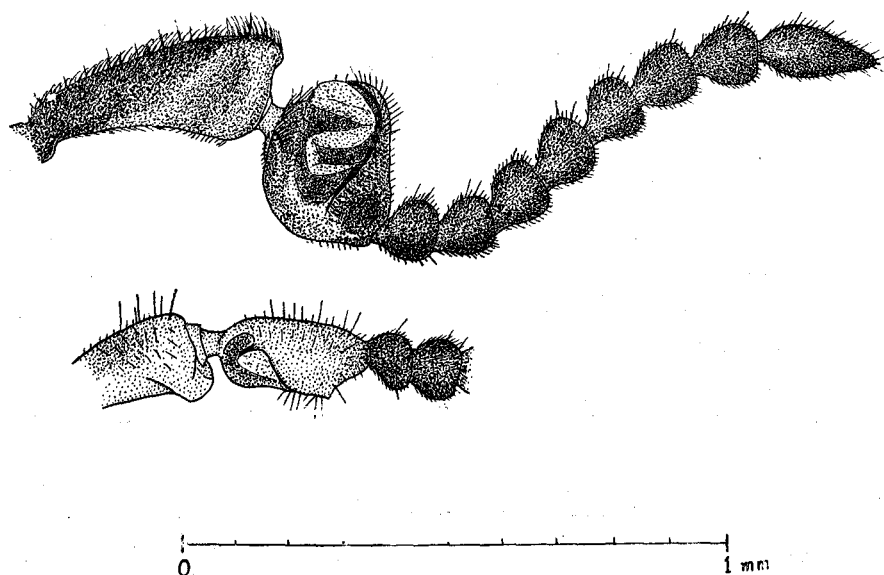


Fig. 1. *Laisus miyamotoi* NAKANE n. sp. ♂. Antenna (right). Above—dorsal view. Below—inner lateral view of proximal part.

♂. Antennae: 1st joint reddish brown, with the basal half and the inner margin blackish, curved and widened to the apex as in the female, 3rd very broadly dilated, nearly as broad as it is long, ear-shaped, above broadly and deeply hollowed in the middle and with an ovate fovea before the apex, the distal margin of the median excavation sharply raised and the inner margin bearing a flexible elongate capsular appendage which arises from a fine but sharp process. Fore femora obliquely grooved before the apex beneath; fore tibiae markedly swollen near the base and narrowed thence to the tip, beneath obliquely grooved near the base and densely clothed with fulvous hairs apically.

Body length: 4–5 mm.

Types: 3 ♂ 6 ♀ (holo-, allo- and paratypes) Takarajima, Tokara Is., 26. V. 1953, T. NAKANE leg.; 1 ♀ (paratype) ditto, 31. V. 1953, T. NAKANE leg.; 5 ♂ (paratypes)

Nakanoshima, Tokara Is., 5. VI. 1953, T. TOKIOKA leg.; 1 ♂ (paratype) ditto, 4. VI. 1953, S. UÉNO leg. (in coll. NAKANE, WITTMER, Osaka City Mus. Nat. Hist., Ent. Lab., Kyushu Univ., Zool. Sect., Nat. Sci. Mus., Tokyo and Seto Mar. Biol. Lab.).

Found on the coral reef at or below high water mark.

According to the literature the present new species is assumably closely allied to *L. flavicornis* FABRICIUS from JAVA, but the 1st antennal joint is lacking a dentiform tuft at the apex, the structure of the 3rd joint in the male is somewhat different, the 4th to 10th joints are shorter and scarcely as long as broad, and the male protibiae are lacking the oblong testaceous callosity at the base.

*Laius asahinai* n. sp.

(Pl. XXV, Figs. 2, 3 and 4-right; Text-fig. 2)

Very closely related to the preceding species, but differs from the latter in the following characteristics:

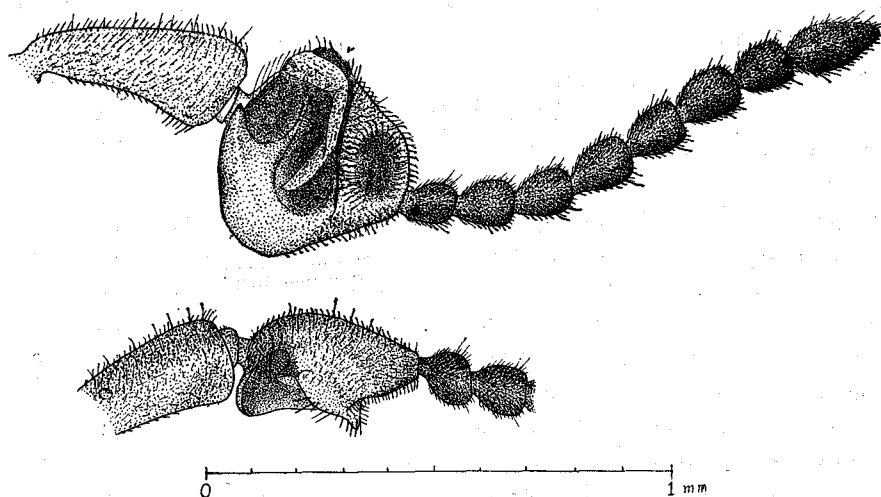


Fig. 2. *Laius asahinai* NAKANE n. sp. ♂ Antennae (right).  
Above—dorsal view. Below—inner lateral view of proximal part.

1. elytra more clearly tinged with metallic blue,
  2. in the male three basal joints and antennae entirely testaceous or reddish yellow, 3rd more extraordinarily expanded with the distal margin of the median excavation very highly raised, and 4th to 10th antennal joints a little longer than broad.
  3. male genitalia narrower and the apex of penis acuminate, not broadly truncate.
- Body length: 4.5-5 mm.

Types: 1♂ 3♀ (holo-, allo- and paratypes) Sata, Ohsumi, Kyushu, 29. V. 1952, T. NAKANE leg.; 2♂ 4♀ (paratypes) ditto, Prof. T. ESAKI leg.; 1♂ 1♀ (paratypes) ditto, Dr. S. ASAHINA leg. (in coll. NAKANE, ASAHINA, WITTMER and Ent. Lab., Kyushu Univ.)

Found on the rocks along the shore.

The examples from the Pacific coast of Honshu are somewhat different from the type-specimens of *L. asahinai* in having less coarsely punctate pronotum, but they are all females and I could not determine the relationship between two strains.

*Laius takaraensis* n. sp.

(Pl. XXV, Fig. 5; Text-fig. 3)

♀. Black, with bluish tinges above, shining; antennae reddish testaceous, with apical 5 joints blackish and the antecedent two more or less brownish; mandibles (apex excepted), tibiae (often infusate in hinder legs), clypeus and labrum in front testaceous; elytra with a wide reddish yellow fascia just before the middle which widens out both at the suture and on the lateral margin; abdomen dusky reddish with a large blackish patch on both sides of each sternite. Body surface rather sparsely clothed with fulvous hairs.

Head moderately densely punctured, frons depressed, in the middle with a fine longitudinal fold which is somewhat widened and abbreviated in front. Eyes oval and prominent laterally. Antennae: 1st joint long, outcurved and markedly thickened to the apex, 2nd extremely short, 3rd shorter than 1st but nearly as broad as the latter before the apex, 4th to 10th short, 11th longer than the preceding and obtusely acuminate at the tip. Pronotum transverse, broader than the head, sides subparallel in the anterior half, then sinuately and strongly convergent to the base posteriorly, base slightly but broadly emarginate; surface rather densely punctured at the sides, and rugosely so before the hind angles, more or less sparsely and finely punctured in the middle, with a shallow transverse furrow behind the front margin and a rather broad transverse impression before the base, which is often divided into two by a fine longitudinal carina in the middle and separated from the basal margin by a transverse carina between them. Scutellum transverse, trapezoidal, narrowed to the subtruncate apex, sparsely and finely punctured. Elytra oval in outline, moderately convex, widened posteriorly and together rounded apically, not closely punctured, the punctures being less impressed near the apex. Body beneath: thoracic pleura thickly and somewhat rugosely punctured, metasternum minutely and not so closely punctured. Legs normal.

♂. Antennae: 1st joint long, widened to the apex, with a dentiform tuft above the apex, 3rd extremely large and broad, obliquely transverse, above shallowly concave, with the inner margin strongly and abruptly raised and broadly bulged in distal

half and bearing a long slender appendage just before and parallel with the basal edge of the elevation. Tibiae, trochanters, apex of coxae, fore femora, apical portion of middle femora testaceous, fore tibiae slender and simple.

Body length: 3-3.5 mm.

Types: 1 ♂ (holotype) Takarajima, Tokara Is., 1. VI. 1953, S. UENO leg.; 1 (allotype) ditto, 1. VI. 1953, Y. H. KONO leg.; 1 ♀ (paratype) ditto, 30. V. 1953, S. MIYAMOTO leg. (in coll. NAKANE and Osaka City Mus. Nat. Hist.)

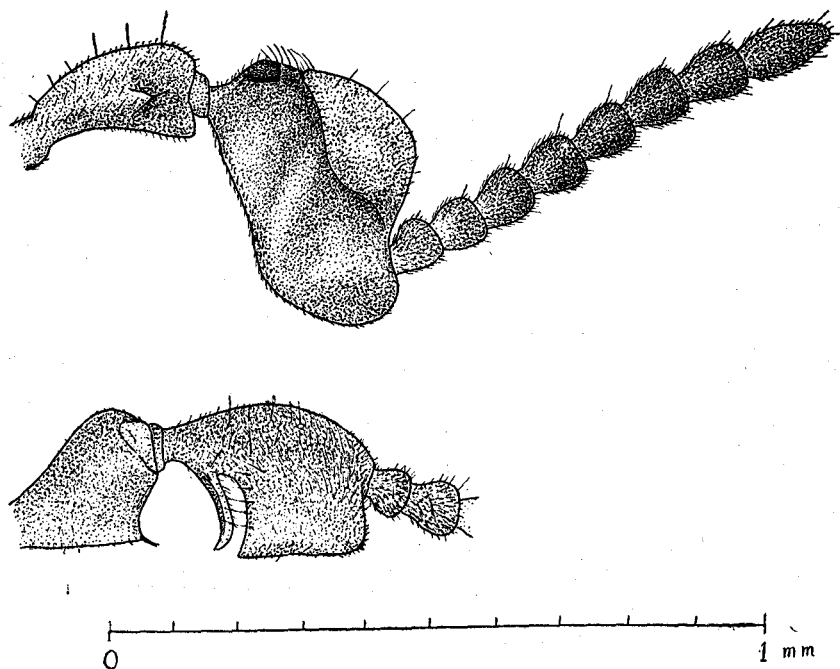


Fig. 3. *Laius takaraensis* NAKANE n. sp. ♂ Antenna (right).  
Above—dorsal view. Below—inner lateral view of proximal part.

This species is a close ally to *L. niponicus* LEWIS from Japan, and may be distinguishable from the latter in having distinct bluish tinges on the body above, a dentiform tuft above the apex of 1st antennal joint and differently-shaped 2nd joint in the male.

Found on the sand-beach.

Note: LEWIS mentioned in his description of *L. niponicus* that the body is black, or with a bluish tint, but a small series of examples before me are all lacking metallic blue tinges above.

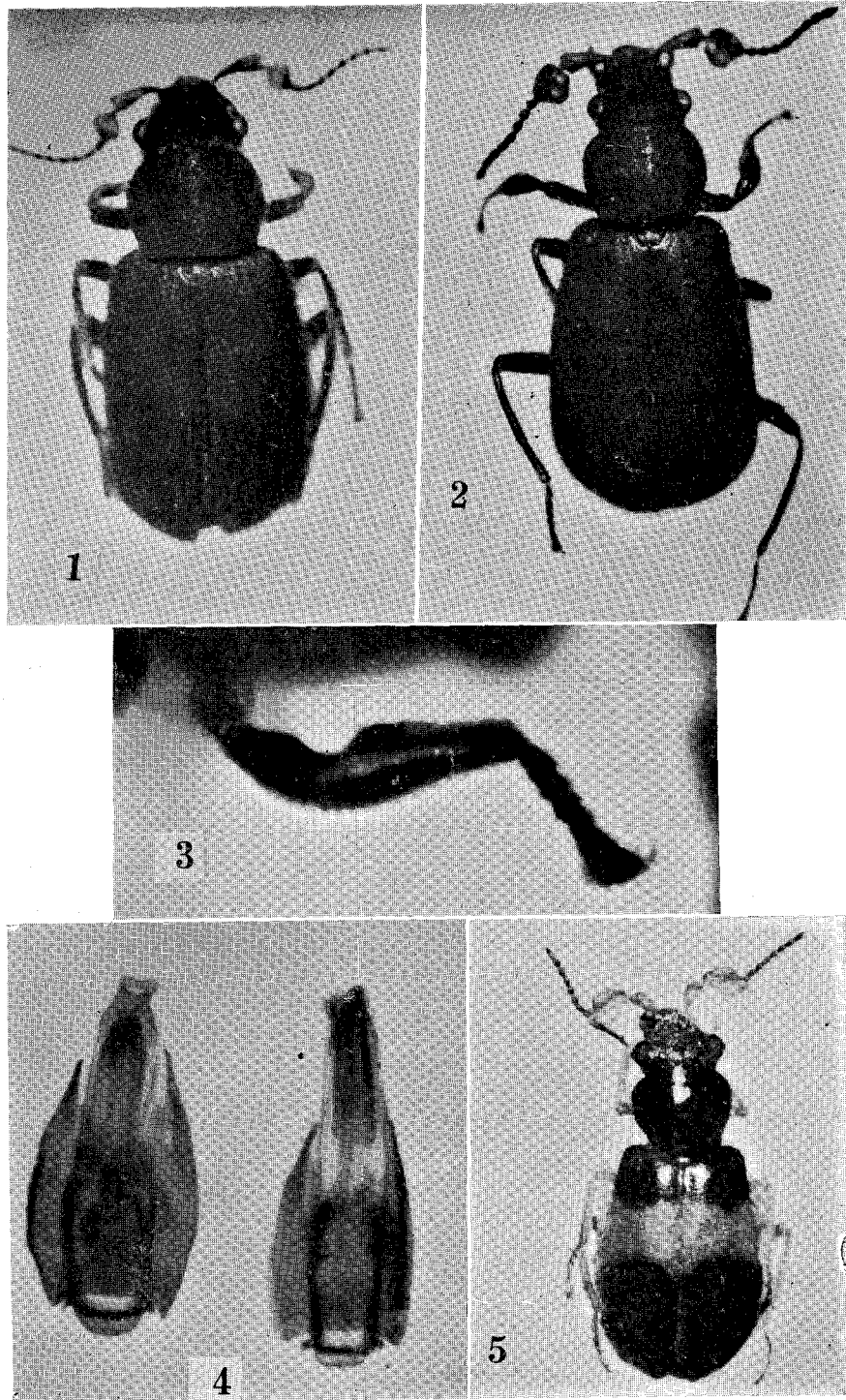
On *Rotamalachius esakii* KÔNO from Rota Island

In 1937 Dr. H. KÔNO described an interesting halophilous Malachiid from Rota Is., collected by Prof. T. ESAKI, and he named it *Rotamalachius esakii* (n. g. & n. sp.). In the course of my study, however, I found that this species belongs to the genus *Laius* and assumed that it would be nearly allied to *L. cyaneus* GUÉRIN from New Guinea, the type of the genus. Responding to my inquiry Dr. Walter WITTMER in Buenos Aires, one of the authorities of Malacoderm Coleoptera of the world, kindly informed me that he confirmed already the synonymy of *Rotamalachius esakii* with *Laius marchei* PIC from Marianna, of which he examined the type in the Paris Museum.

In conclusion, I wish to express my sincere thanks to Prof. Dr. T. ESAKI and Dr. S. ASAHINA for their kind help for my study, and also to Dr. W. WITTMER for his kind suggestion. Further I am much indebted to Mr. Y. TSUTSUI, director of the Osaka Municipal Museum of Natural History, and other members of the scientific expedition to the Tokara Islands for their agreeable assistance rendered me during the survey.

## EXPLANATION OF PLATE XXV

- Fig. 1. *Laius miyamotoi* NAKANE n. sp. ♂  
Fig. 2. *Laius asahinai* NAKANE n. sp. ♂  
Fig. 3. *Laius asahinai* NAKANE n. sp. ♂ protibia (right)  
Fig. 4. Male genitalia of *Laius*: left—*L. miyamotoi*;  
right—*L. asahinai*.  
Fig. 5. *Laius takaraensis* NAKANE n. sp. ♂



T. NAKANE: MARINE INSECTS OF THE TOKARA ISLANDS, V.